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ABSTRACT

Reported are the results of a study undertaken in 1975 among a number of colleges and universities to answer these questions: What can colleges do to assist their graduates in finding a place in a crowded labor market?: Are there useful, effective patterns in efforts of a sample of institutions nominated as exemplars in this respect?; What can be done to prepare for the coming reduction in the number of high school graduates and potential freshmen applicants?; and Can the experience of the exemplar sample, nominated because of success in this area, be of assistance here? (MSE)

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Increasing Graduate Employability and Planning for Fewer Freshmen: Policy Initiatives and Outcomes of 76 Institutions *

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What can colleges and universities do to assist their graduates to find a place in a crowded labor market? Are there useful, effective patterns in efforts of a sample of institutions nominated as exemplars in this respect? What can be done to prepare for the coming reduction in the number of high school graduates and potential freshmen applicants? Can the experiences of the exemplar sample, nominated because of success in this area, be of assistance here? Finch and Smith (1974) and Froomkin (1976) have described the magnitude of these problems. This paper describes some successful solutions.

The research on which this paper is based studied questions over a two-year period. Support was received in the form of a grant from the National Institute of Education and in the form of guidance from advisers and panelists from higher education organizations and government agencies too numerous to mention here. A debt of gratitude is owed one and all and an apology for any advice untaken or suggestions unheeded.

Design

The study began in 1975 with a year-long nomination of a sample of 110 institutions which were making a concerted effort to help their graduates meet the challenges of a tight labor market and which were experimenting with operations potentially useful to other's efforts to adjust to the impending shifts in numbers of high school graduates and freshman applicants for college.

Data on institutional attributes were secured from the National Center for Educational Statistics and analyzed for the sample. Attributes such as enrollment, faculty/student ratios, and accreditation formed the core of these data. The intent here was to develop a general profile of the average public and

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private two-year and four-year college involved in these efforts. The nominations were kept open for a year to allow the jury ample time to search exhaustively for nominees.

The nominees were asked to supply data on the number of programs and departments they were operating, and to describe the patterns of planning and decision-making at their schools. This information was used to complete the profiles described above.

The nominees were also asked to indicate the patterns and outcomes of their efforts by rating (a) the amount of emphasis accorded 24 program components, and (b) the value attached to each of these efforts. The components were defined through the jury of experts method and presented in Likert form. Ratings for both emphasis and value were arranged on a scale of 1-7. Outcomes were rated similarly with the numbers related to percentage increases in enrollment, faculty productivity (credit hours generated), placement, and involvement of older, women and minority students. Percentage decreases in student attrition was also provided for in the scale. The jury consisted of ten members of national higher education agencies and organizations.

Findings

One hundred and ten colleges and universities were nominated for the study. Eighty-eight had made a concerted effort to deal with the challenges in question over a period of three or more years, and 76 of these were able to supply complete sets of data requested. The sample included 12 public four-year, 23 public two-year, 36 private four-year and 5 private two-year institutions.

Means and standard deviations were computed for enrollment, faculty/student ratios, number of programs and number of departments. These together with a distribution of accrediting associations were used to describe the average institution in a sample. A sixth piece of data was also included in the analyses: A composite SAT score which was developed by equating ACT scores to SAT scores

where applicable, through the use of a table of concordance developed by Chase and Barritt (1966) and by combining SAT-V and SAT-M scores into a composite according to procedures developed by the College Entrance Examination Board (1975).

The typical public four-year college in the sample enrolled 7822 students, had a faculty/student ratio of 17:1, an average SAT composite of 509 and was accredited by the North Central Association of Colleges and Schools. They are all regional universities serving a defined service area of their states. Most were adding general programs and reducing the scale of operations in teacher education. The typical school operated 19 departments and 46 degree programs.

The typical private four-year college was a prototype of the small liberal arts college. It enrolled 1315 students, had a SAT composite of 501, and operated 15 departments and 19 degree programs. The typical school was accredited by the North Central Association.

Public two-year colleges had a mean enrollment of 8381 students and accreditation leadership was shared by the North Central Association and the Southern Association of Schools and Colleges. These schools as a group had a faculty/student ratio of 22:1 and operated 17 departments and 46 degree programs. SAT and ACT scores for the most part were not included for these institutions and were not analyzed.

Private two-year colleges enrolled 1540 students, had a faculty/student ratio of 11:1, a SAT composite of 491 and operated 13 departments and 9 degree programs. Most emphasized transfer programs, which accounts, perhaps, for the lower than usual number of degree programs.

The profiles that emerged from these analyses are those of a typical regional university, small liberal arts college, private junior college and somewhat large community college. The faculty/student ratios, and number of departments and degree programs are also typical, and the quality of students enrolled seems slightly high according to national means for SAT composites. This index was

compiled on 1975 entering freshmen data (College Entrance Examination Board, 1975, pp. 31-32) and is probably lower at this writing since many schools have experienced slight declines on national test score averages.

The presidents of the institutions in the sample, or their designates, completed a rating scale which requested an assessment of the degree of emphasis given to various operations components (policy initiatives) considered potentially valuable by a panel of experts on the subject. A second scale requested a rating of the value these initiatives proved to have for the institutions. Both scales provided for ratings of 1-7 and had a mean of 4.0. The scales were tested for face and content validity by use of the panel which consisted of the officials from organizations and agencies described on page 2.

Table 1 contains the ratings and standard deviations for both emphasis and value accorded the 20 program initiatives the sample used. Four initiatives were not used by all institutions in the sample and were not included in the analyses. Seventeen of the 20 initiatives had rating scores at or above the mean of the emphasis rating scale. The initiatives suggested by the expert panel ranged from expansion of traditional efforts such as more admissions contacts and academic programs to the newer techniques of market analysis and planning from labor market data. The standard deviations in the table indicate a moderate amount of variation across all items.

Policy initiatives receiving the highest ratings were expansions of traditional efforts. A great deal of emphasis had been placed on expanding business, health sciences and other programs and on providing more internship opportunities for these and other programs. The institutions had increased the staff and scope of placement operations, studied the skills demanded of graduates and kept tabs on their placement rates. They had utilized federal labor market data and data from local labor market surveys in their program planning but had made only a limited use of state labor market data, possibly because its availability was

Table 1

Means and Standard Deviations of Emphasis and Value Ratings of Operations Components

Operations Components (Policy Initiatives)	Emphasis		Value	
	Mean	S.D	Mean	S.D
Expanded Internship Opportunities	5.42	1.31	5.82	1.21
Expanded Business Offerings	5.59	1.68	5.84	1.56
Expanded Admissions Contacts	5.27	1.58	5.50	1.61
Expanded Career Planning Centers	5.37	1.78	5.85	1.41
Expanded Health Sciences Offerings	5.26	1.93	5.46	1.83
Offered Other New Programs	5.26	2.38	5.46	1.51
Expanded Placement Opportunities	5.05	1.94	5.56	1.86
Expanded Number of Program Brochures	4.87	1.58	5.85	1.53
Studied Placement RAtes of Graduates	4.79	1.81	5.56	1.75
Expanded Labor Market Data in Brochures	4.79	1.70	5.01	1.66
Studied Skills Demanded of Graduates	4.78	1.64	3.53	1.53
Utilized Federal Labor Market Data	4.58	1.80	4.66	1.70
Expanded Admissions Contacts: Older Students	4.49	1.74	4.95	1.61
Discussed Program With Faculty	4.41	1.65	5.39	1.70
Conducted Area Surveys on Demand	4.31	1.71	5.23	1.83
Conducted Student Market Studies	4.29	1.74	4.98	1.51
Conducted Analyses of New Student Markets	4.14	1.87	4.98	1.90
Utilized State Labor Market Data in Planning	3.24	1.92	4.21	1.93
Modified Liberal Arts Core of College	3.23	1.89	4.36	1.91
Conducted Market Segmentation Studies	3.05	1.90	5.60	1.76

Note: Ratings were on a scale of 1-7 for both emphasis and value of policy initiatives related to the operations components

on a limited basis. The institutions also stepped up their contacts with prospective students and conducted studies of projections of student markets generally and the possibilities of new student markets: older students, women and minorities. Finch and Smith (1974) discuss these markets as viable alternatives to the shrinking 18-22 year old market. They had done little with the new techniques of market segmentation and none had conducted market position studies. Modification of the liberal arts curriculum received a weak rating which placed this initiative next to last in the rankings on emphasis. Faculties are often reluctant to make changes in the traditional liberal arts programs. The initiative received a very high rating on value, however: those who tried it liked it. The opposite was true of studies of skills demanded by employers of graduates of the institutions.

By and large the efforts and policy initiatives of the institutions parallel the suggestions of theorists such as Froomkin (1976) and Finch and Smith (1974) on the best ways to deal with the twin phenomena involved: tight labor markets (and career minded students) and falling birth rates which drove down sizes of high school classes. Increased placement of students in the business sector seems absolutely necessary in this stiuation and more knowledge and sophistication about the labor market must be afforded to young people, hence the emphasis here on business programs, internships, career centers and the like. Students must be encouraged and taught to be more mobile, write good vitas, carry off good interviews, and all the rest, it seems if increased placement in the business sector and increased placement, generally, is to become a reality.

The numbers of programs developed was instructive. In addition to the business and health sciences programs developed by most of the sample, 61 programs had been developed in other subject areas. Eighteen dealt in some way with public service; the rest represented a broad spectrum of local, regional and national needs. All were quite contemporary and included programs in environ-

mental sciences, recreation, gerontology, marine sciences, and solar energy, to name a few.

The data on emphasis and values were subjected to a two-way analysis of variance to test for the influence of type and control of institution on the ratings. A .05 level of confidence was utilized as a criterion. There were some minimal influences operating, but none would affect the positions of the items in the ratings. Two-year private colleges had expanded their brochures and internship opportunities at a more rapid pace than others and public colleges had developed a greater variety of programs other than business and health sciences.

In an attempt to arrive at a rough indication of the impact of the programs on the institutions involved, the presidents were asked to indicate the percentage increases in enrollment, placement and faculty productivity along with decreases in student attrition which their evaluation data had led them to attribute to their programs and efforts. If data from evaluations were not available on any or all of the indicators of impact, they were asked to state this fact.

A simple distribution of percents has been arranged in Table 2. The distribution indicates that the programs made an impact on the campuses. Percentage increases and decreases for indicators ranged from highs of 59, 58 and 59 officials indicating increases of 5-10 percent and more in placement, productivity, and enrollment respectively to 46 of 76 officials indicating decreases of 5-10 percent and more for student attrition. None indicated a complete absence of data for all indicators.

Table 2

Distribution of Percents of Placement, Productivity and Enrollment Increases and Attrition Decreases Attributed to Program

N=76

Increases/Decreases	Percent				
	DNA*	Little	5-10	10-20	20+
Placement	7	11	33	20	5
Faculty Productivity	3	15	32	22	4
Enrollment	9	8	34	12	13
Student Attrition	4	26	24	6	16

*Data not available

A final set of data included the methods used to generate the policy initiatives studied. The presidents were asked to describe the methods used to plan for programs and to make policy decisions of this nature. The investigator was particularly interested in the degree to which some of the formal, commercial planning systems, now receiving a great deal of attention, were being used. A theme analysis of the replies to these questions was made, and the policy documents sent as part of the fulfillment of the request for information on this subject were also analyzed.

Most of the institutions in this study did plan rather vigorously. They had analyzed the environment in which they were operating and had studied themselves rather closely. Most had made projections of enrollment, cost, and other resource requirements for the future, and most were keenly aware of the problem of fewer persons in future freshman applicant pools.

Most of the institutions utilized a planning procedure which was a combination of the newer approaches to defining missions, options and the like, and traditional means of decision-making: curricula and courses committees, faculty senates and all-college planning committees. Few used a single planning system

such as marketed by NCHEMS (National Center for Higher Education Management Systems). Several used the NACUBO (National Association of College and University Business Officers) system for budget projections and many used elements from the former group as complements for their own systems. A typical institution might have a planning committee, designate a vice president of academic affairs as planning officer, generate data for planning through an office of institutional research and utilize NCHEMS' resources requirement planning model (RRPM) and induced course load matrices (ICLM) for data displays regarding costs and cost projections.

Summary

A sample of 76 institutions was generated through a year-long process of nominations by higher education organization and agency officials who were asked to identify colleges and universities making a concerted effort to help their graduates deal more effectively with a tight labor market and which were experimenting with operations and policy initiatives potentially useful to efforts by institutions to deal with the shifts in freshman applicant pools because of declining birthrates.

The typical institutions in the sample was a public regional university, a community college, or a small liberal arts college. A few private two-year colleges were included. SAT/ACT scores, faculty/student ratios, accreditation status and numbers of programs and departments indicated that the sample was representative of a great number of American colleges and universities.

The presidents of the institutions provided data on their efforts by responding to a Likert-type instrument designed to rate both the emphasis and the value attached to the elements of a comprehensive program, by forwarding data on the outcomes of the program as gleaned from their own evaluations and by describing the planning procedures which generated these policy initiatives and which characterize their institutions generally.

In a rank order of importance, the officials listed the expansion of internships, business, and health science programs as the top three elements in their efforts. Next came development of new programs based on careful study of demand for graduates. Twenty of the 24 program elements had been used by all institutions in the sample.

Some 60 new programs were installed by the 76 institutions in the sample in addition to the expansions described above. Expansion of admissions contacts, development of more program brochures and inclusion of more labor market data in program brochures followed in that order. The schools also discussed their efforts in faculty meetings, studied the placement patterns of their graduates, and began to examine the potentials for new student markets: women, minorities, and older students, in their service area. Evaluation data submitted indicated that the programs were effective. Approximately 77 percent of the institutions indicated a 5-10 percent or more increase in placement, faculty productivity as defined by student credit hours generated, and enrollment. About 60 percent indicated decreases in attrition of the same magnitude.

The institutions for the most part used planning committees and locally developed planning systems to generate the policy initiatives for their efforts and to plan generally for their futures. These systems often included selected elements from the more formal commercial systems now on the market.

The investigator concluded that tight labor markets for college graduates and shrunken applicant pools can be dealt with by college officials. A concerted, creative effort is demanded, it seems, by determined faculties and administrators. Further study is indicated in a number of areas.

Efforts are underway by the investigator to complete a series of case studies of the ten most successful institutions in this sample. Stepwise regression analyses are also being applied to the data of the study to identify a set of predictors - and thus a set of policy initiatives - for each expected outcome.

This will enable officials to focus energies on seven or eight policy initiatives if only one outcome is desired instead of generating the complete program.

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